

Simplify each rational expression.

1) $\frac{x^2 + 4x - 5}{18} \cdot \frac{6}{x^2 - x} =$ 1) _____

2) $\frac{x+5}{2x-8} \cdot \frac{5x^2-5x-30}{10x^2+70x+100} =$ 2) _____

$\frac{7(2x^2-x-3)}{14(x-2)} \cdot \frac{3(x-2)}{x+1} = \frac{7(2x-3)(x+1)}{2 \cdot 14(x-2)} \cdot \frac{3(x-2)}{x+1}$

3) $\frac{14x^2-7x-21}{14x-28} \cdot \frac{x+1}{3x-6} =$ 3) _____

$\frac{14x^2-7x-21}{14x-28} \cdot \frac{x+1}{3x-6} = \frac{3(2x-3)}{2} \cdot \frac{x+1}{3} = \frac{x+1}{2}$

5) $\frac{x^2+5x+6}{x^2+2x-3} \cdot \frac{10x+20}{10} =$ 5) _____

$\frac{6x(x+5)}{(x+5)(x+1)} \cdot \frac{(x-3)(x+2)}{(x+2)(x+2)} = \frac{6x(x-3)}{(x+1)(x+2)}$

6) $\frac{6x^2+30x}{x^2+6x+5} \cdot \frac{x^2+4x+4}{x^2-x-6} =$ 6) _____

7) $\frac{x^2-9}{x^2+2x-8} \cdot \frac{x^2+9x+20}{x^2-3x} =$ 7) _____

8) $\frac{4x^2+27x-7}{9x^2+12x-5} \cdot \frac{4x^2-7x+3}{2x^2+13x-7} =$ 8) _____

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9) $\frac{14x^3}{27} \cdot \frac{-9}{2x^2} \cdot \frac{3}{-6x^3} =$ 9) _____

10) $\frac{x^4-81}{3x^2+27} \cdot \frac{x^2-x-12}{3x} =$ 10) _____

$\frac{4(x-2)}{(x-3)(x+2)} \cdot \frac{(x-3)(x+3)}{x(x^2+x-6)} = \frac{4(x-2)}{(x-3)(x+2)} \cdot \frac{(x-3)(x+3)}{x(x+3)(x-2)}$

11) $\frac{4x-8}{x^2-x-6} \cdot \frac{x^2-9}{x^2+x^2-6x} =$ 11) _____

12) $\frac{x^2+6x+9}{x^2+10x+24} \cdot \frac{x^2+3x-18}{x+3} =$ 12) _____

13) $\frac{3x^3+24x^2}{x^2+18x+80} \cdot \frac{x-9}{x^2+20x+100} =$ 13) _____

$\frac{(x-y)(x+y)}{15x^2y^2} \cdot \frac{3y^3}{4(x+y)} = \frac{3y^3(x-y)}{4x}$

14) $\frac{x^2-y^2}{5x^3y^2} \cdot \frac{4x+4y}{15x^2y^5} =$ 14) _____

15) $\frac{x^2-5x+6}{x^2-8x+15} \cdot \frac{x-5}{x-2} \cdot \frac{x^2-9}{x^2+3x} =$ 15) _____

$\frac{(x-3)(x-2)}{(x-3)(x-5)} \cdot \frac{(x-5)}{(x-2)} \cdot \frac{x(x+3)}{(x-3)(x+3)}$

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section 1 - choose 2
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